

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Jackson County Emergency	:	
Telephone System Board	:	
	:	13-0669
Petition to Modify 911 Provider for	:	
Jackson County Emergency	:	
Telephone System Board, Jackson	:	
County, Illinois.	:	

PROPOSED ORDER

By the Commission:

I. INTRODUCTION

On December 6, 2013, Jackson County Emergency Telephone System Board ("Petitioner") filed with the Illinois Commerce Commission ("Commission") a verified petition pursuant to the Emergency Telephone System Act ("ETSA"), 50 ILCS 750/0.01 et seq., the Public Utilities Act, 220 ILCS 5/1-101 et seq., and 83 Ill. Admin. Code 725 "Standards of Service Applicable to 9-1-1 Emergency Systems" ("Part 725"). Petitioner seeks approval to change its 9-1-1 system provider from Frontier Communications ("Frontier") to NG-911, Inc. ("NG-911") for the purpose of implementing a next generation 9-1-1 system. Attached to the petition is a description of the next generation 9-1-1 system that Petitioner intends to implement.

Pursuant to due notice, hearings were held in this matter before a duly authorized Administrative Law Judge ("ALJ") of the Commission at its offices in Springfield, Illinois on January 14, February 27, and April 23, 2014. The following entities filed petitions to intervene that were granted by the ALJ: Frontier, NG-911, Illinois Bell Telephone Company d/b/a AT&T Illinois and New Cingular Wireless PCS, LLC (collectively "AT&T"), and Matt Johnson, who is the President of the Illinois Telecommunications Association, Inc. At the April 23 evidentiary hearing, Petitioner offered the testimony of Patrick Lustig, Petitioner's 9-1-1 Director. NG-911 called its President and Chief Executive Officer, Michael Ramsey, to testify. AT&T offered the testimony of Mark Neinast, an Associate Director in its Network Operations Department. Marci Schroll, the 9-1-1 Program Manager within the Safety and Reliability Division of the Commission's Bureau of Public Utilities, and Kathy Stewart, an Engineering Analyst in the Telecommunications Engineering Department of the Safety and Reliability Division, testified on behalf of Commission Staff ("Staff"). Matt Johnson testified on his own behalf. The record was marked Heard and Taken as of May 6, 2014.

Petitioner, NG-911, AT&T, and Staff each filed an Initial Brief and Reply Brief. A Proposed Order was served on the parties.

II. DESCRIPTION OF PETITIONER

Petitioner operates the 9-1-1 emergency services program in Jackson County, Illinois. The Commission approved Petitioner's 9-1-1 system on February 28, 1994 in Docket No. 93-0020. The system became operational on October 16, 1995 and operates on a county wide basis with public safety answering points ("PSAP") located at the Jackson County Sheriff's Department, Murphysboro Police Department, Carbondale Police Department, and Southern Illinois University Police Department/Department of Public Safety. The 9-1-1 system dispatches police, fire, and ambulance services.

III. LEGAL AUTHORITY

Petitioner seeks to implement a next generation 9-1-1 system as that term is defined in Section 2.21 of the ETSA. Section 2.21 provides:

"Next generation 9-1-1" or "(NG9-1-1)" means, for the purposes of a Regional Pilot Project, a system comprised of managed Internet Protocol-based networks and elements that augment or replace present day 9-1-1 features and functions and add new capabilities, which may enable the public to transmit text, images, video, or data, or a combination thereof, to the 9-1-1 system.

Section 2.22 defines "Regional Pilot Project" as follows:

"Regional Pilot Project" means an experimental program designed to test the efficacy of next generation 9-1-1 (NG9-1-1) within a region that includes not less than 15 counties and not more than 19 counties with an aggregate population no greater than 500,000. Any Regional Pilot Project must be approved by the Commission and provide for an initial testing phase designed to demonstrate the ability of the technology to provide access to emergency services from new and existing sources with no reduction in existing service quality, reliability, or safety.

Petitioner is the first of several county emergency telephone system boards in southern Illinois that intend to participate in a next generation 9-1-1 Regional Pilot Project. In order to proceed with the project, the Commission must approve Petitioner's transition from Frontier to NG-911. Section 725.205 of Part 725 sets forth the requirements for modifying an existing 9-1-1 system plan. Section 725.205(i) states that the "Commission shall approve a final or modified plan when the petitioner has complied with the requirements of this Part and applicable laws."

IV. ISSUES

Before delving into the issues discussed by the parties, the Commission must comment on the scope of this proceeding. As reflected in the record and mentioned

above, Petitioner is the first of fifteen counties and one municipality that intend to engage in a Regional Pilot Project under Section 2.22 of the ETSA. (See also Docket No. 12-0094) This multi-jurisdictional group is known as the Counties of Southern Illinois ("CSI") and is set up as a not-for-profit 501(c)(3) corporation.

Despite this context, the Commission will focus on what the record before it addresses: whether Petitioner can change its 9-1-1 service provider from Frontier to NG-911 for the purpose of migrating to a next generation 9-1-1 system. Accordingly, the Commission is only concerned with the unique plan modification proposed by Petitioner. Consistent with the recommendation of intervenor Johnson, this Order is not intended to establish any precedent concerning the way that next generation 9-1-1 services are to be provided in other locations. Only if the record in future dockets supports a similar or the same outcome will such an outcome result.

A. Aggregation of 9-1-1 Traffic

1. Petitioner and NG-911 Position

Having a common interest in the outcome of this case, Petitioner and NG-911 share similar views on the issues presented. With regard to the necessity of dedicated transport, they assert that the modified plan complies with Section 725.410(b) of Part 725 because it specifies that 9-1-1 traffic will be delivered by dedicated trunking. They argue that there simply is no additional requirement that there must be separate transport facilities for each carrier. Section 725.410(b) provides:

Dedicated redundant facilities should be considered to be the standard method of providing all incoming 9-1-1 facilities and, when possible, employ diverse routing. 9-1-1 circuits and facilities shall be sufficient to complete 99% of all requests for emergency services during the average busy hour of the average busy day. In all cases, the 9-1-1 network shall be provisioned to handle a minimum of two circuits and/or simultaneous calls, and shall use dedicated, diverse and/or redundant equipment, when available, in order to increase the survivability of the 9-1-1 network. Additionally, the Commission 9-1-1 Program Staff and/or 9-1-1 authority may, on an annual basis or in the event of a problem, request traffic studies or other documentation to verify that the standard is being met.

AT&T witness Neinast testifies that Section 725.410(b) requires "dedicated, redundant facilities," which in his opinion means that carriers transporting 9-1-1 calls to a PSAP have to do so on transport facilities that are used only to transport 9-1-1 calls and only for a single carrier's traffic. (AT&T Exhibit 1.0, lines 426-432) He believes that aggregating different carriers' 9-1-1 traffic for transport to the Data Centers, as proposed by the Frontier Aggregation Service ("FAS"), could violate the requirements of Section 725.410(b). FAS is a service provided by Frontier to NG-911 for the transport and selective routing of the traffic of "access carriers" over existing Frontier connections to the NG-911 Data Centers in Murphysboro and Harrisburg. FAS is not a service that

AT&T purchases from Frontier. Rather, it is a network arrangement between NG-911 and Frontier that permits AT&T (and all other carriers) to hand-off 9-1-1 traffic, as it does today, at Frontier's Carbondale switch. A key feature of FAS is that it combines traffic from several carriers on a single transport facility. This includes 9-1-1 traffic from different wireline carriers, as well as traffic from wireless carriers, so that traffic from wireline and wireless carriers is intermingled on the same facilities. Mr. Neinast asserts that combining E9-1-1 traffic from different carriers on a single trunk group could cause network integrity issues, including a denial of service attack on a PSAP. He also suggests that wireline and wireless E9-1-1 traffic should remain on separate transport facilities.

Petitioner and NG-911 agree that "dedicated redundant facilities" should be the standard method of delivering incoming 9-1-1 calls, as it prohibits carriers from sending administrative lines or other non-emergency traffic over the same trunks. Noting that Staff does not share Mr. Neinast's concerns, Petitioner and NG-911 insist that nothing in Section 725.410(b) requires that transport facilities only be for a single carrier's traffic. NG-911 witness Ramsey explains that there is no need to deliver 9-1-1 traffic over separate trunks for each carrier once the calls are aggregated via the FAS because once the non-Session Initiation Protocol ("SIP") calls are aggregated via the FAS, they are converted to SIP. They aver that there is no more concern of a denial of service attack through the non-SIP trunks than with the existing legacy access network today. A heavy call load from one particular carrier will simply tie up the trunks from that carrier. With the non-SIP traffic connected to the FAS, no denial of service attack would bring down the 9-1-1 service. Petitioner and NG-911 state further that Petitioner's plan also calls for the SIP traffic to pass through a Session Border Controller ("SBC") before entering the Emergency Services Internet Protocol Network ("ESInet"), which will identify and isolate any denial of service attack.

They contend that the more important standard set forth in Section 725.410(b) is the requirement that "9-1-1 circuits and facilities shall be sufficient to complete 99% of all requests for emergency services during the average busy hour of the average busy day." Mr. Ramsey testifies that Petitioner's plan meets or exceeds the standards for a modified 9-1-1 system set forth in the Commission's rules and regulations. Based upon his experience, he asserts that the modified plan will perform the functions required for the safe and secure delivery of 9-1-1 calls in a manner which will improve the emergency communications system available to Jackson County citizens. NG-911 states further that AT&T's network integrity concerns are based on documents and analyses that specifically indicate that they are not applicable to next generation network configurations, such as that being contemplated in the case at hand.

2. AT&T Position

In addition to Section 725.410(b), AT&T also cites Section 725.405(i)(11) as governing dedicated transport. Section 725.405(i)(11) provides that the "9-1-1 system provider shall meet the following technical requirements for the provisioning of 9-1-1 service:"

Provisioning all 9-1-1 facilities over dedicated redundant facilities. This should be considered to be the standard method of providing all incoming 9-1-1 facilities and, where possible, employ diverse routing. 9-1-1 circuits and facilities shall be sufficient to complete 99% of all emergency calls during the average busy hour of the average busy day. In all cases, the 9-1-1 network shall be provisioned to handle a minimum of two circuits and/or simultaneous calls, and shall use dedicated, diverse and/or redundant equipment, where available, in order to increase the survivability of the 9-1-1 network. Additionally the Commission 9-1-1 Program Staff and or 9-1-1 authority may on an annual basis or in the event of a problem request traffic studies be performed or other documentation be provided to verify that the standard is being met.

AT&T interprets this language, and that from Section 725.410(b), to require dedicated transport facilities for incoming 9-1-1 traffic to a Data Center. AT&T explains that this is because the rule requires “dedicated” facilities as the standard method of transporting traffic (when possible). AT&T witness Neinast testifies that the word “dedicated” in this context means a transport facility that is used only to carry the 9-1-1 traffic of a single carrier. He does not believe that it permits different wireline carriers to combine their 9-1-1 traffic on a single transport facility to a selective router (or Data Center). Nor does he believe it permits wireline and wireless 9-1-1 traffic to be combined onto a single transport facility. This is how AT&T handles its 9-1-1 traffic today in Illinois.

AT&T argues that Petitioner's and NG-911's interpretation of the rule renders the rule language meaningless. This is so, AT&T explains, because 9-1-1 transport facilities can not be used for non-emergency traffic under any circumstances, because they do not connect locations that would have such traffic. They only connect locations that handle 9-1-1 traffic – like selective routers or data centers. And they can not, AT&T continues, be used for “administrative” traffic because Rule 725.200(b) prohibits the use of 9-1-1 transport facilities for out-bound traffic from the PSAP (“9-1-1 service is a terminating only service that connects a person who has dialed the universal emergency service code 9-1-1 to the appropriate PSAP”). Since 9-1-1 transport facilities can only be used to carry 9-1-1 traffic, AT&T contends that the additional obligation imposed in Sections 725.405(i)(11) and 725.410(b) for “dedicated redundant facilities” could reasonably be interpreted to require something more than that. AT&T acknowledges that Petitioner could have requested a waiver of this rule under Section 10 of the ETSA, but it has not yet done so. AT&T believes that network integrity is enhanced by continuing to have separate transport facilities for the 9-1-1 traffic of each carrier. AT&T adds that it is particularly important to keep the 9-1-1 traffic of wireline carriers separate from the 9-1-1 traffic of wireless carriers. AT&T recommends that the Commission resolve this issue by deciding whether or not its rules permit carriers to aggregate 9-1-1 traffic on the same transport facilities. Petitioner's plan modification is clearly premised on the assumption that the rules do permit aggregation. If they do not, AT&T states that Petitioner should be required to revise its plan modification.

AT&T denies that there is anything unique about an internet protocol ("IP") 9-1-1 network that eliminates any congestion or denial of service issues. According to AT&T, a SBC device will not screen out service denial attacks because this device simply distinguishes between authorized and unauthorized carriers. More to the point, AT&T asserts that it does not screen out "bad" traffic from authorized carriers. Thus, if an authorized carrier is subject to a denial of service attack, AT&T contends that that carrier's traffic will not be blocked by a SBC.

AT&T also disputes NG-911's statement that a heavy call load from one particular carrier will simply tie up the trunks from that carrier. AT&T states that under the existing network architecture, 9-1-1 calls are only aggregated on the transport route between the Frontier selective router and the PSAP that is the ultimate destination for the call. Thus, if there is a congestion problem with one carrier, it can be detected, isolated, and corrected so that it does not affect other carriers. In the proposed network architecture, in contrast, 9-1-1 calls are aggregated as soon as they arrive at the Frontier central office, so AT&T believes that any congestion problem with a single carrier immediately affects all other carriers.

3. Staff Position

Staff disagrees with AT&T's view concerning traffic aggregation. Staff asserts that AT&T's interpretation stretches the Commission's rules farther than they are intended to go. Section 725.405(i)(11) provides in relevant part that: "[p]rovisioning all 9-1-1 facilities over dedicated redundant facilities ... should be considered to be the standard method of providing all incoming 9-1-1 facilities ...[.]" Likewise, Section 725.410(b) provides, in relevant part, that: "[d]edicated redundant facilities should be considered to be the standard method of providing all incoming 9-1-1 facilities ...[.]" In short, it appears to Staff that AT&T urges the Commission to interpret the word "should" in its rules to mean "shall" or "must." In construing a statute or rule, however, Staff avers that effect must be given to the entire statute or rule, its nature and object, and the consequences following from alternate constructions.

That "should" is not a mandatory term is apparent to Staff from context. Staff observes that both provisions use the word "shall" elsewhere in their text, indicating that a different meaning was intended for the words "should" and "shall." (See, e.g., Illinois Bell Telephone Co. v. Commerce Comm'n, 362 Ill.App.3d 652, 661; 840 N.E.2d 704, 712 (4th Dist. 2005) (different provisions in statute or rule are deemed to have different meanings)) Staff states further that the mandatory aspects of both rules relate to what the circuits and facilities in question must do, which is to be sufficient to complete 99% of all emergency calls made in the average busy hour of the average busy day. Moreover, when Staff reads Part 725 as a whole, it is clear that use of facilities for the carriage of more than one carrier's 9-1-1 calls is actually contemplated by the rules. To support this claim, Staff references Section 725.410(j)(5), which provides that each telecommunications carrier shall deliver 9-1-1 service elements for the provisioning and ongoing maintenance of the 9-1-1 systems as follows:

Provision and connect its network to the appropriate 9-1-1 system provider. Nothing in this Section prohibits a telecommunications carrier from contracting with a third party provider who may connect its network to the appropriate 9-1-1 system provider for the transport of 9-1-1 traffic. The network design must adhere to the engineering practices and default routing requirements specified in Section 725.405(i)(11) and (22).

Staff understands this language to mean that a third party may aggregate traffic, in a manner precisely contrary to AT&T's interpretation.

More fundamentally, however, Staff points out that AT&T witness Neinast appears to be subject to the misapprehension that Commission rules deal with the facilities and circuits running to the PSAP, rather than to the 9-1-1 system provider. Staff states that this is simply not the case. The point of interconnection ("POI") between carriers and the 9-1-1 system provider is the selective router. Thereafter the 9-1-1 system provider (using, in this case, FAS) aggregates traffic to each PSAP. Staff notes that it is a matter of record that all incoming 9-1-1 calls to Petitioner will be routed through Frontier's existing selective router located in the Carbondale central office. This is consistent with Section 725.410(j)(5), which, as noted above, provides that "[e]ach telecommunications carrier shall deliver 9-1-1 service elements for the provisioning and ongoing maintenance of the 9-1-1 systems [by] ... [p]rovision[ing] and connect[ing] its network to the appropriate 9-1-1 system provider[,]" in this case NG-911, which uses FAS to aggregate and selectively route the traffic to the data centers and from there to the appropriate PSAP. Staff therefore concludes that Mr. Neinast is simply incorrect in his conclusion.

Staff is also concerned that AT&T's request regarding the aggregation of 9-1-1 traffic amounts to a request for a declaratory ruling. Staff is concerned because the request is not sought by Petitioner and is arguably beyond the scope of the declaratory rulings statute (Section 5-150 of 5 ILCS 100/1-1 et seq.) and Section 200.220 of 83 Ill. Adm. Code 200, "Rules of Practice." Staff relates that each provides that an entity may seek a declaration as to the applicability to the person presenting the petition or request of any statutory provision enforced by the Commission or any Commission rule. Because AT&T does not seek that here and instead seeks a general finding regarding aggregation, Staff recommends that this request be denied.

4. Commission Conclusion

The Commission does not share Staff's concern about AT&T's request being tantamount to a request for a declaratory ruling. Rather, the proper interpretation of the Commission's rules is an appropriate inquiry in resolving this docket. Upon considering the parties' arguments on the aggregation of 9-1-1 traffic, the Commission finds the FAS consistent with Part 725. Aggregating 9-1-1 traffic as Petitioner and NG-911 propose does not conflict with the plain meaning of the Commission rules. The fact that AT&T handles 9-1-1 traffic one way does not mean that any other way of doing so is wrong. The concerns that AT&T expresses appear to be complaints that the FAS may not be

perfect. While perfection is certainly desirable, the Commission can not expect human endeavors to be perfect. This reality is why the 99% emergency call completion rate is the standard in the provisions from Part 725 quoted above. The representations in the record satisfy the Commission that this standard can be met by Petitioner.

B. Matters Concerning Network Configuration and Plan Modification

1. Petitioner and NG-911 Position

Petitioner and NG-911 agree that in the future, if a carrier elects to directly connect to the 9-1-1 system instead of sending 9-1-1 traffic through the FAS, Petitioner will file a plan modification for Commission review and approval. In the meantime, the FAS will aggregate and deliver the trunks for carriers which elect to remain connected through Frontier to the two Data Centers and NG-911 will selectively route the traffic to the PSAPs. Petitioner has contracted with Clearwave to provide an ESInet to connect the PSAPs. The ESInet will incorporate two fully duplicated Data Centers, one at the Jackson County Sheriff's Office in Murphysboro and one at the Saline County Sheriff's Office in Harrisburg, and the network will include a Session Border Controller ("SBC") function for security. As the sole 9-1-1 System Provider, NG-911 will be responsible for provisioning the network.

The standard for network reliability is set forth in Section 725.410(b), which provides, "9-1-1 circuits and facilities shall be sufficient to complete 99% of all requests for emergency services during the average busy hour of the average busy day." NG-911 witness Ramsey testifies that Petitioner's modified plan meets or exceeds the standards for a modified 9-1-1 system set forth in the Commission's rules and regulations and that, based upon his experience, the modified plan will perform the functions required for the safe and secure delivery of 9-1-1 calls in a manner which will improve the emergency communications system available to Jackson County citizens.

In the event another carrier wants to connect directly to the NG-911 Data Centers instead of using the FAS, AT&T recommends that the Commission require Petitioner to file a plan modification within 60 days after receiving a request to accommodate direct connection. Petitioner and NG-911 concur that a change in the network provisioning, such as the direct connection of an access carrier, should require Petitioner to file a plan modification in accordance with Section 725.200(i). Mr. Ramsey recognizes that changes in configuration of the 9-1-1 system in Jackson County are inevitable in coming years; that direct connection with AT&T and other carriers is one such possibility; and that changes in the network configuration, including termination of the FAS agreement, would require Commission approval. But according to Petitioner and NG-911, requiring Petitioner to file a plan modification within 60 days of a request for direct connection is unreasonable and unduly burdensome. The sheer volume of information that must be provided for a plan modification makes it almost impossible to prepare and file a plan modification within 60 days. They contend that AT&T has shown no particular reason for imposing such a deadline. Most importantly, Petitioner, as the emergency telephone system board, is charged with the design and deployment of its 9-1-1 system. Imposing

a 60 day requirement for filing a plan modification would infringe upon the authority of such boards to design and deploy the 9-1-1 systems as they deem to be in the best interests of the citizens served.

2. AT&T Position

AT&T believes that it should have the clear option to directly connect to NG-911's Data Centers. Without this option, AT&T's 9-1-1 traffic will be carried to the Data Centers over the FAS and will be aggregated with traffic of all other carriers. AT&T has concerns with aggregating 9-1-1 traffic in this manner because of network integrity issues, i.e., it is easier to isolate and remedy network issues attributable to a single carrier if traffic is not combined onto a single transport facility. Furthermore, AT&T states that combining wireline and wireless 9-1-1 traffic on the same transport facility can impact routing, default routing, and congestion control. Accordingly, AT&T believes that the most prudent solution from a network engineering perspective is to provide an option for direct connection to the Data Centers. This option should be spelled out with enough detail to permit AT&T to engineer and order trunks and transport facilities from AT&T's locations to the Data Centers so that it can deliver its traffic to those locations, if it elects to do so. Alternatively, the plan modification should obligate Petitioner to file an additional plan modification to permit direct connection within a specific number of days of a request by AT&T or any other carrier. Initially AT&T suggested that any additional plan modification be filed within 60 days of a request for a direct connection, but in its Reply Brief AT&T extended its recommended period to 90 days. AT&T states further that at a minimum the plan modification filed in response to such a request should include technical specifications that detail how the traffic hand-off will occur at the Data Center. For example, AT&T states that Petitioner should clarify whether AT&T would connect to the Legacy Network Gateway that is shown in Figure 1 of the Plan Narrative, or at some other location. Petitioner should also provide detail about the applicable testing requirements and maintenance procedures.

AT&T characterizes NG-911's response to this suggestion as ambiguous and confusing. On the one hand, NG-911 states that "we've made it quite clear that direct connection is an option." (NG-911 Exhibit 3.0, line 20) AT&T claims, however, that other comments made by Mr. Ramsey suggest otherwise. Briefly, AT&T complains that it was not invited to negotiate a direct connection. In any event, AT&T apparently preferred to wait until Petitioner initiated the docket at hand before addressing how it would be impacted by the plan modification. AT&T also complains that Petitioner needs to provide details about how such a direct connection could take place. AT&T argues that the Commission should require Petitioner to provide details of how a carrier can directly connect to the NG-911 Data Centers. Alternatively, the Commission should require Petitioner to file an additional plan modification for direct connection within 90 days of a request by AT&T or any other carrier.

3. Staff Position

The Commission authorized NG-911 to operate as a 9-1-1 system provider on August 21, 2012 in Docket Nos. 12-0093 and 12-0109 (cons.). Staff observes that it appears that NG-911 will be solely responsible for provisioning the network used for the delivery of 9-1-1 calls in Jackson County. This satisfies the requirements set forth in Section 725.405.

In addition, Petitioner has submitted several Network Diagrams. The diagrams show connection of the competitive local exchange carriers and wireless carriers through the FAS and from there to the Selective Routers located in the Murphysboro and Harrisburg Data Centers. The diagrams further show connection of the Frontier exchanges and the Egyptian Telephone Company exchanges through the FAS and then onto the Selective Routers located in the Murphysboro and Harrisburg Data Centers. Staff is satisfied with the functionality of the network depicted by these diagrams.

Staff recognizes that access providers other than Clearwave might seek to directly connect to the NG-911 Data Centers in the future. Staff relates that this modification, or other modifications to the network, would require Petitioner to file a plan modification. Section 725.200(i) requires modifications to a 9-1-1 authority's existing 9-1-1 plan to be formally submitted to the Commission for approval. More specifically, Section 725.200(i)(6) requires that changes in network configuration must be approved by the Commission. Submissions to the Commission under this section must include a modified plan, consisting of the revised application narrative and/or revised exhibits, as prescribed in Section 725.205. In fact, Staff continues, any network alterations that affect the 9-1-1 call flow, POI, and building out of new network is a major change in the design of the 9-1-1 system and requires approval of the Commission prior to any changes being made to ensure all issues have been addressed. In the case of Petitioner, where the POI at the FAS could conceivably be moved to somewhere on Clearwave's network or possibly require the build-out of new facilities in order for an access carrier to directly connect at NG-911's Data Centers, such a modification should only be permitted after the Commission has approved a modified plan that contains a revised network diagram and narrative detailing the procedures established for properly routing 9-1-1 calls in these different scenarios.

Staff notes that this is the first NG9-1-1 system to be established in Illinois. Interconnection solutions between incumbent local exchange carrier 9-1-1 system providers, new competitive 9-1-1 system providers, and other telecommunication/access carriers have never been addressed in Illinois. Staff states that there are a number of issues that might possibly arise from these types of network changes. Therefore, the formal plan filing and approval process established by the Commission allows all parties to address potential problems or ramifications of such changes in connectivity, the network, and routing. The goal, Staff relates, is to ensure that 9-1-1 calls can be routed to the appropriate 9-1-1 system whether legacy based or IP-based with the enhanced 9-1-1 features, i.e., Automatic Number Identification ("ANI") and Automatic Location Identification ("ALI"). Oversight on new network and routing configurations will be necessary until such time that all 9-1-1 systems are all NG9-1-1

capable and interconnected to one another. Additionally, Staff believes that it will be extremely important for it to monitor the progress of the very first NG9-1-1 systems in Illinois to ensure a smooth transition back and forth between legacy and NG9-1-1 networks.

4. Commission Conclusion

The Commission has considered the parties' arguments and finds AT&T's claims exaggerated. The record does not support any claim that Petitioner or NG-911 has refused or would refuse any carrier direct connection. Rather, Petitioner and NG-911 have indicated that they would work with a carrier seeking a direct connection at either of NG-911's Data Centers. In addition, the Commission is not persuaded of the necessity of a 60 or 90-day filing deadline for plan modifications. If a carrier seeking direct connection is not satisfied with progress toward that goal, it may file a complaint with the Commission to resolve that dispute. To be clear, the Commission expects any direct connection request by an access carrier to be given fair and timely consideration and be brought before the Commission for approval as with any plan modification.

C. Split Exchanges

The term "split exchange" in this context refers to a geographic area served by a particular telecommunications provider that is divided between two or more separate 9-1-1 entities. Calls to 9-1-1 from an end user located within one of these "split" exchanges must be selectively routed to the appropriate PSAP. There are 16 such exchanges in the area served by Petitioner.

Petitioner and NG-911 relate that Frontier has accepted the responsibility of selectively routing calls from split exchanges to the appropriate 9-1-1 system using the FAS. NG-911 witness Ramsey testifies that he is satisfied that the FAS will handle the split exchange issues in Jackson County and that migration to NG9-1-1 will eventually make split exchanges a moot point. NG-911 acknowledges Staff witness Stewart's concern about the possibility that split exchange calls from customers directly connected to the Data Center, such as Clearwave, that need to be routed to a separate 9-1-1 system other than Petitioner could lose ANI/ALI information. In response to Staff, Mr. Ramsey testifies that there should be no problems with Clearwave customers in split exchange areas and that during the preliminary testing between NG-911 and Clearwave through the ESInet, ANI/ALI information was available from Clearwave's switch. While AT&T questioned whether Frontier would be selectively routing calls, no party suggested any problem with the delivery of split exchange calls via the FAS service.

The Commission has given due consideration to the concerns regarding split exchanges and finds that they have been satisfactorily addressed by Petitioner and NG-911. The Commission encourages Petitioner and NG-911 to be mindful of such concerns as it continues to test its systems in preparation for the transition to NG9-1-1.

D. FAS Contract Term

AT&T expresses concern about the length of NG-911's contract with Frontier for the provision of FAS.¹ AT&T contends that FAS needs to be available longer than the contract expiration date to ensure continued 9-1-1 service to Illinois consumers. To address this issue, AT&T suggests that the Commission do something to extend the availability of FAS. AT&T offers that one way to do this would be to require Petitioner or NG-911 to commit to making the FAS arrangement available for a longer period of time, e.g., for five additional years, on the same terms and conditions that apply to the initial period. Given that the plan modification is premised on the ability of carriers to use the FAS to connect to the Jackson County PSAPs, AT&T asserts that it is very important for the Commission to do something like this to make sure that the FAS remains reasonably available, at least for the time-being. In response to this concern, NG-911 witness Ramsey testifies that changes in configuration of the 9-1-1 system in Jackson County are inevitable in coming years; that direct connection with AT&T and other carriers is one such possibility; and that changes in the network configuration, including termination of the FAS agreement, would require Commission approval. If the necessity for Commission approval of termination of the FAS agreement means that the terms and price of FAS will not change without Commission approval, AT&T considers its concerns resolved. AT&T recommends that the order explicitly state that FAS is an integral component of the plan modification and that FAS can not be terminated, and its terms and conditions can not be changed, without Commission approval.

The Commission has considered AT&T's concerns. The FAS is clearly a significant part of the proposed plan modification. All of the parties seem to agree that termination or alteration of the FAS would necessitate the filing of another proposed plan modification subject to Commission approval. As such, the Commission is not concerned by the current FAS contract term and does not find it an obstacle to approval of the pending proposed plan modification.

E. Data Base and PS/ALI Updating

Private Switch ("PS")/ALI service requires operators of private switches (i.e., Private Branch Exchange – PBX, or CENTREX) in large buildings to provide in-building ALI on 9-1-1 calls so that emergency responders know where in a building to look for the person in need of assistance. The PS operators administer this station-level information. All 9-1-1 service providers in Illinois currently offer PS/ALI service to customers.

1. AT&T Position

According to the Plan Narrative (at 13) “[t]here are no direct connected PS/ALI customers in Jackson County at the time of filing, but if there are direct connected PS/ALI customers, updates will be sent via the same [file transfer protocol ("FTP")] site

¹ The FAS contract term is confidential. Page 9 of the confidential version of AT&T's Initial Brief identifies the length of the FAS contract.

as direct connect carriers.” AT&T has two issues with this position. First, AT&T states that the Commission should be very sure that Petitioner and NG-911 are correct when they say that there are no business customers in Jackson County that are required to provide PS/ALI information under Section 726.205 of 83 Ill. Adm. Code 726, "Requirements for Businesses with Private Business Switch Service to Comply with the Emergency Telephone System Act" ("Part 726"). Part 726 requires any business with more than 40,000 square feet that operates a private switch to provide PS/ALI to the PSAP. AT&T contends that there appear to be businesses in Jackson County that fall within the scope of this rule. As an example, AT&T offers the Penn Aluminum Company, which has a 270,000 square foot manufacturing facility. AT&T believes that NG-911 is avoiding the issue by distinguishing between directly connected and indirectly connected customers. As AT&T understands it, this means that all PS operators continue to rely on Frontier for the services they need to upload location information into the ALI database so that location information is accurately provided to the PSAP. AT&T recognizes that there are exemptions under the rule for businesses that maintain alternative means of responding to an emergency, that have on-site personnel to meet first-responders at the building, and that notify the Commission that they are seeking an exemption from the rule. AT&T has no way to know whether Penn Aluminum Company qualifies for this exemption, or whether other business locations in Jackson County with more than 40,000 square feet qualify for the exemption. In any event, AT&T recommends that the Commission confirm that Petitioner is in full compliance with Part 726.

Second, AT&T states that the Plan Narrative does not adequately address how PS/ALI updates would work if and when there are businesses that are required to comply with Part 726. According to AT&T, nothing in the Plan Narrative explains how update records will be submitted, what format the records will be submitted in, or how they will be validated against a master street address guide or geographic interface service ("GIS")-based database system for accuracy. Nor, AT&T continues, is there any explanation of whether and how NG-911 will offer new PS/ALI agreements with PS operators in Jackson County that directly connect to the ESInet.

2. Petitioner and NG-911 Position

NG-911 witness Ramsey testifies that NG-911 will manage the ALI database using database software that fully integrates with the other functional elements of the next generation system. Access carriers that use the FAS will continue to transmit database updates to Frontier, which will pass the Service Order updates to NG-911. Access carriers that are directly connected will provide ALI updates to NG-911 via a FTP site. NG-911 indicates that this arrangement will apply to both ALI and PS/ALI updates. Mr. Ramsey adds that as the sole 9-1-1 Service Provider, NG-911 will be responsible for database management.

In response to AT&T's concern about PS/ALI customers, Mr. Ramsey testifies that there are no PS/ALI customers in Jackson County directly connected. He states further that if a PS/ALI customer wants to direct connect, the system will accept

integrated services digital network primary rate interface and SIP trunking directly from the customer's switch and that updates will be sent to the NG-911 database in standard National Emergency Number Association format via an FTP site. Petitioner reminds the Commission that the burden to provide ALI information is on the PS operator, not Petitioner. In addition, Mr. Ramsey disagrees with AT&T's concern that details have been left out about the ALI database. He states that the GIS database process is well documented in the Plan Narrative and Petitioner will use diverse 911 Datamaster software and servers. He points out that Sections 2.6 and 2.7 of the plan narrative detail how the service order updates will be received and maintained, including those of PS/ALI customers.

3. Commission Conclusion

While appreciative of AT&T's concerns, the Commission is not convinced that a problem exists. As Petitioner and NG-911 point out, it is the responsibility of the PS operator to provide the necessary information. Petitioner and NG-911 are not obligated to seek out PS operators. As long as Petitioner and NG-911 are capable of receiving and efficiently utilizing the updated information, they will have fulfilled their responsibility. The record does not reflect any shortcoming in their ability to do so, and as such PS/ALI updating can not stand in the way of approval of the proposed plan modification.

F. Testing and Monitoring

Petitioner and NG-911 maintain that the test plans are comprehensive and will thoroughly and sufficiently test the elements of call delivery to ensure the system performs as designed and in conformance with Commission rules and regulations. The test plans are attached to the plan narrative as Exhibits 10.1 and 10.2. Exhibit 10.1 consists of the functionality testing of the NG-911 network and Exhibit 10.2 consists of the tests of the Frontier portion of the network. While Staff is satisfied with the testing protocols, it recommends that Petitioner provide the Commission's 9-1-1 Program Office certain information during the implementation phase of its Next Generation system and for a period of time after it has cut over to the new system. Staff recommends the following conditions:

- a. submission of weekly test reports prior to cutting live to the new system,
- b. participation in weekly implementation conference calls with all parties (Petitioner, NG-911, Frontier, involved access providers, involved 9-1-1 system providers, and Staff),
- c. submission of the schedule of the phased-in cut-over to the new system by exchange,
- d. submission of traffic studies/call completion reports for 3 months after cut-over to the new system, and
- e. any other trouble reporting if deemed necessary.

NG-911 agreed to the conditions set forth by Staff. Petitioner indicates that it will continue to work with Staff to address any concerns they have when testing is conducted and completed. The Commission finds Staff's conditions reasonable and appropriate and will adopt them.

G. Counties of Southern Illinois

A copy of the 9-1-1 Service Provider Agreement between NG-911 and Petitioner is attached to the petition as Exhibit 11. Staff had expressed concern that the 9-1-1 Service Provider Agreement was between NG-911 and CSI as a whole and not specifically with Petitioner. To address its concerns, Staff requested further information relating to (1) formal documentation regarding the creation of CSI which demonstrates the relationship between Petitioner and CSI; (2) the expiration dates of all agreements between CSI and Petitioner; and (3) an explanation of what the relationship would be between NG-911 and Petitioner in the event of the dissolution or partial dissolution of CSI. Petitioner and NG-911 provided the requested information, including certain intergovernmental agreements with respect to the creation and structure of CSI and the membership of Petitioner in CSI. NG-911 witness Ramsey provided testimony regarding the contractual relationship between NG-911, Petitioner, and CSI. He also indicates that if CSI is dissolved or partly dissolved, NG-911 would continue to be the 9-1-1 Service Provider for Petitioner. Petitioner adds that it is committed to continue the process with NG-911 even if other counties do not. Upon receipt of the requested information, Staff has raised no further concerns regarding the nature and involvement of CSI. The Commission is satisfied with the information in the record on this issue and has no concerns in this regard.

V. REQUEST FOR CONFIDENTIAL TREATMENT

Petitioner and NG-911 request confidential treatment for certain information filed in this proceeding and in particular for information pertaining to contract terms between them. The Commission finds that confidential treatment should be granted to this information under the terms set forth in the Terms Governing Protection of Confidential Information issued on March 7, 2014 for a period of two years from the entry of this Order.

VI. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the record herein, is of the opinion and finds that:

- (1) Petitioner operates the 9-1-1 emergency services program in Jackson County, Illinois under the ETSA;
- (2) NG-911 has authority from the Commission to operate as a 9-1-1 system provider;

- (3) Petitioner and NG-911 seek to implement a next generation 9-1-1 system as defined in the ETSA;
- (4) the Commission has jurisdiction over Petitioner and the subject matter herein;
- (5) the recitals of fact and legal argument identified as the parties' respective positions in the prefatory portion of this Order accurately reflect the record in this proceeding;
- (6) the recitals of fact and conclusions of law reached in the Commission conclusions are supported by the record and are hereby adopted as findings of fact and conclusions of law for purposes of this Order;
- (7) the record reflects that Petitioner's proposed 9-1-1 plan modification complies with Part 725 and applicable laws; and
- (8) Petitioner's proposed 9-1-1 plan modification should be approved subject to the following agreed-to conditions:
 - (a) submission of weekly test reports prior to cutting live to the new system,
 - (b) participation in weekly implementation conference calls with all parties (Petitioner, NG-911, Frontier, involved access providers, involved 9-1-1 system providers, and Staff),
 - (c) submission of the schedule of the phased-in cut-over to the new system by exchange,
 - (d) submission of traffic studies/call completion reports for 3 months after cut-over to the new system, and
 - (e) any other trouble reporting if deemed necessary.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that the Jackson County Emergency Telephone System Boards' request to modify its 9-1-1 system is hereby approved subject to the conditions in Finding (8).

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

DATED: May 28, 2014

Briefs on Exceptions must be received by June 11, 2014.
Briefs in Reply to Exceptions must be received by June 18, 2014.

John D. Albers
Administrative Law Judge